

REMARKS

Summary of the Office Action

Claims 1-2 and 4-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over what the Office Action allegedly refers to as “common knowledge in the art” and reference US Patent No. 3,244,922 (hereinafter “the ‘922 patent”).

Claim 3 is allowed.

Summary of the Response to the Office Action

Applicants have amended independent claims 1 and 4 to differently describe embodiments of the disclosure of the instant application. Accordingly, claims 1-5 remain currently pending for consideration.

Rejections under 35 U.S.C. § 103(a)

Claims 1-2 and 4-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over what the Office Action allegedly refers to as “common knowledge in the art” and the ‘922 patent.

The Examiner is thanked for the indication that claim 3 is allowed. The dependency of claim 2 was amended in the Amendment previously filed on September 15, 2008 so that it depends on independent claim 3. Accordingly, claim 2 is in condition for allowance in light of the Office Action’s indication of claim 3 being allowed at least because of it’s dependence on allowed independent claim 3. Withdrawal of the rejection of claim 2 is thus respectfully requested.

Applicants have amended independent claims 1 and 4 to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to still apply to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

The cited '922 patent teaches a plurality of protrusions, and each protrusion constitutes a pair together with an associated depression, and the electron multiplier section between the photocathode 14 and the anode 16 is constituted by arranging these pairs along the direction from the photocathode 14 and the anode 16, while maintaining the interval between the adjacent wall portions constituting the pairs of protrusions and depressions at a constant value. In other words, for electrons propagating from the photocathode 14 to the anode 16, each protrusion and depression pair functions as a dynode. In the same manner, each of the claimed protrusions functions as a dynode for the electrons propagating from the claimed photocathode to the claimed anode.

However, Applicants respectfully submit that for undesirable electrons reversely propagating from the anode to the photocathode, the function of the claimed protrusions is clearly different from that of the protrusions of the cited reference. Namely, Applicants respectfully submit that in the invention as described in the advantageous combination of features of newly-amended independent claim 1 of the instant application, the interval between the adjacent wall portions becomes narrow at the positions where the protrusions are provided. Furthermore, in the invention as described in the advantageous combination of features of newly-amended independent claim 4 of the instant application, the sectional area of each through hole becomes narrow at the positions where the protrusions are provided.

In other words, for the undesirable electrons reversely propagating from the photocathode to the anode, each of the claimed protrusions functions as a barrier (see the area (b) of Fig. 5 of as described in the specification of the instant application). In contrast, the electron multiplier construction of the cited '922 patent sets the interval between the adjacent wall portions at a constant value. Therefore, the protrusions of the cited '922 patent cannot function as a barrier for the undesirable electrons reversely propagating from the anode 16 to the photocathode 14.

As described previously, Applicants respectfully submit that the cited reference does not teach, or even suggest, the advantageous combination of features as claimed in newly-amended independent claims 1 and 4 of the instant application. As a result, Applicants respectfully submit that newly-amended independent claims 1 and 4 are allowable over the applied art for at least the foregoing reasons.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 103(a) should be withdrawn because the applied art of record, whether taken separately or combined, do not teach or suggest each feature of independent claims 1 and 4 of the instant application, as newly-amended. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).”

Furthermore, Applicants respectfully assert that dependent claim 5 is allowable at least because of its dependence from independent claim 4, and the reasons discussed previously.

CONCLUSION

In view of the foregoing amendments and remarks, withdrawal of the rejections and allowance of all pending claims are earnestly solicited. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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